

Quality Deep Dive

Deep Dives are powerful learning experiences for those who strive to create world-class systems and high-performance engineering teams.

Goal

This ten-module workshop is a hands-on, highly-collaborative, and fun way to absorb decades of actionable wisdom and proven process. It is designed to help you learn and immediately implement the steps necessary to eliminate software quality problems for good. By the time you submit your final work for the graduation session, you will:

- Know where you and your teams are in the quality journey.
- Have a significant amount of data that quantifies the quality performance of your teams.
- Have data that shows the impact of quality on productivity and speed.
- Have made improvements that impact your processes.
- Have an action plan for even more dramatic improvements

Objectives

Participants graduate with a deep understanding of quality management for high-tech systems development and an action plan to successfully implement lessons in their organization for immediate impact. The workshop experience will:

- Provide a modern way to think about the quality of the products you produce and the system development processes you use to develop them.
- Destroy myths that are so popular that you might believe them.
- Show you how to manage quality so you will know what data to collect and how to use it.
- Manage quality so you can produce products you are proud of that delight your end-users.
- Ensure each quality step is focused on the economics of quality and speed to value for your customers.
- Provide positive impacts to your organizational quality, speed, and customer loyalty.

Materials

Throughout the deep dive students consolidate their completed exercises in their **Quality Notebook**. By the end of the deep dive this notebook includes all their personal and pertinent organizational quality data, improvement ideas, and their improvement plan. At the end of the workshop, student receive their **Quality Toolkit** which includes class data, quality tools and job aids, and a comprehensive bibliography.

Participants

Typical attendees in this program are individual developers or leaders who need to more fully understand and gain mastery of quality. Participants should have the ability to immediately apply what they have learned to their organization. Past participants have included Senior Software Architects, Senior Engineers, Senior Project Managers, Senior Quality Managers, Chief Technology Officers, and Dev Ops Leadership.

Duration and Cadence





Each module consists of a dialog, reading assignment, exercise, and lab session. Each participant receives expert coaching in ways to best apply the various concepts in order to realize immediate benefit in their jobs and their organization. Coaching is provided via labs and direct one-on-one mentor sessions.

Course Overview

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Module 1: Quality, Value, & Speed

-  Quality, Value, and Speed (R1)
-  Customer Defects (EX1)
-  Quality, Value, & Speed Dialog (D1)
-  Lab 1 (L1)

Module 2: A Practical View of Quality

-  The Quality Journey (R2)
-  Economics of Quality (EX2)
-  A Practical View of Quality (D2)
-  Lab 2 (L2)

Module 3: Quality Baseline





-  Under Pressure (R3)
-  Cost of Quality (EX3)
-  Driven by Data (D3)
-  Lab 3 (L3)

Module 4: Decriminalize Defects





-  Everyone Makes Mistakes (R4)
-  Defect Data Dictionary (EX4)
-  Decriminalize Defects (D4)
-  Lab 4 (L4)

Course Overview





Module 5: Power Tools for Early Defect Removal

-  The Power of Professional Inspections (R5)
-  Checklist-Driven Inspections (EX5)
-  Power Tools for Early Defect Removal (D5)
-  Lab 5 (L5)





Module 6: Economics of Quality and Speed

-  Learning from Test Defects (R6)
-  Economics of Quality and Speed (EX6)
-  Economics of Quality and Speed (D6)
-  Lab 6 (L6)

Module 7: Manage Quality with Data

-  Rational Management (R7)
-  Manage Quality with Data (EX7)
-  Manage Quality with Data (D7)
-  Lab 7 (L7)

Module 8: Technical Debt

-  Technical Debt Assessment (R8)
-  Technical Debt (EX8)
-  Technical Debt (D8)
-  Lab 8 (L8)

Module 9: Culture of Excellence

-  Make Quality Personal (R9)
-  Personal Goal and Plan (EX9)
-  Culture of Excellence (D9)
-  Lab 9 (L9)

Module 10: The Hero's Journey

-  The Hero's Journey (D10)

The Quality Deep Dive Builds Conviction Through Application

Deep dives are based on years of research and real-world application of best practices and a deep understanding of how to motivate people to make positive and permanent changes to the way they work to consistently achieve excellent outcomes. This deep dive was developed using the following design considerations:

- Instilling in everyone the principles of quality management (versus “the methodology is magic”)
- Active learning (versus “being taught”)
- On-the-job application leading to wisdom (versus “book exercises”)
- Ten modules of collaborative learning (versus “fire hose training”)
- Expert mentors (versus “certified instructors”)
- Tailoring to your needs (versus “bringing the stone tablets”)
- Building a cohort community (versus “testing” individuals)
- Mentoring and collaboration (versus “individual achievement”)
- Designing all materials to be useful and used
- Designing an experience that appeals to people with a strong drive to succeed

